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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,451	01/08/2001	Christopher M. Edwards	60311A	5541

109 7590 08/10/2004

THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

FONTAINE, MONICA A

ART UNIT PAPER NUMBER

1732

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/756,451	Applicant(s) EDWARDS ET AL.	
	Examiner Monica A Fontaine	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the Amendment filed 24 May 2004.

The rejection of Claims 1, 3, 5-8, and 10, as stated in the paper mailed 25 February 2004, are maintained. Only the rejection of Claim 1 has been restated herein.

The rejection of Claims 2, 9, and 11 as stated in the paper mailed 25 February 2004, has been withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Beck (U.S. Patent 6,365,081). Beck shows that it is known to carry out a pultrusion process for preparing a continuous fiber-reinforced thermoplastic composite article by continuously pulling the fibers through a process (Abstract) comprising the steps of drawing a fiber bundle continuously through a melt obtained by heating a thermoplastic resin (Column 5, lines 13-15, 21-23; Column 6, lines 2-5), impregnating the drawn fiber bundle with the melted thermoplastic resin to form a composite melt (Column 6, lines 2-10), drawing the composite melt through a consolidation die to form a thermoformable composite profile (Column 5, lines 66-67; Column 6, lines 1-10),

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thermoforming the composite profile on-line to form along the length of the article: a curve (Column 7, lines 2-5), and cooling the shaped composite article to solidify the thermoplastic resin and provide an article that is curved, twisted or provided with a varied cross-sectional shape along its length (Column 4, lines 5-9).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck, in view of Kemerer et al. (U.S. Patent 4,290,248). Beck shows the process as claimed as discussed in the rejection of Claim 1 above, but he does not give a specific glass transition temperature requirement for his molding material. Kemerer et al., hereafter "Kemerer," show that it is known to carry out a method of molding wherein the thermoplastic resin includes a depolymerizable and repolymerizable polystyrene (Claim 11) thermoplastic resin having a Tg of not less than 50°C (Claim 2) (Column 11, lines 40-41). Kemerer and Beck are combinable because they are concerned with a similar technical field, namely, continuous molding processes which form composite articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Kemerer's resin with the specific glass transition temperature in Beck's molding process in order to obtain an article usable at certain industrial conditions and/or temperatures.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beck, when taken with Jeffrey A. Moore's article "Evaluation of Environmental Stress Cracking Resistance (ESCR) of High Temperature Clear Plastics for High Voltage Electrical Devices", in view of Kemerer.

Regarding Claim 9, Beck shows the process as claimed as discussed in the rejection of Claim 1 above, including the use of polyurethanes (Column 5, lines 50-51). He does not give a specific glass transition temperature of his polyurethanes, however, when taken with Moore's article, it can be seen that polyurethanes are known to have a glass transition temperature of not less than 50°C (Table 2), meeting applicant's claim.

Response to Arguments

Applicant's arguments, see the paper filed 24 May 2004, with respect to the rejection(s) of claim(s) 2, 9, and 11 under Beck and Willenberg have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Beck and Kemerer.

With regard to Claims 1, 3, 5-8, and 10, Applicant's arguments filed 24 May 2004 have been fully considered but they are not persuasive.

Regarding Claim 1, applicant contends that Beck does not teach the instant invention because he does not teach co-extruded profiles that do not change longitudinal cross sectional shape. This is not persuasive because this limitation is written in alternative fashion along with

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“a curve” or a “twist”. Therefore, Beck’s method of forming a curve in the composite article meets the claim.

It is noted that the rejection of Claim 3 was not specifically argued.

Regarding Claim 5, applicant contends that the fact that Willenberg contemplates a rotating die is irrelevant since the key feature of thermoforming a profile after exiting the die is not contemplated. This is not persuasive because Willenberg is not cited to teach thermoforming a profile after exiting a die. Willenberg is cited to show the use of a rotating die, and since a successful operation of a thermoforming operation subsequent to the use of Willenberg’s rotating die can be reasonably expected, it is maintained that it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to Willenberg’s rotating die as the die in Beck’s molding operation in order to use technology-specific dies for certain molded articles.

Regarding Claim 6, applicant contends that Beck and Gross do not teach the instant invention because Gross’ process entails maintaining a consistency of foam thickness which is unrelated to creating different haul-off rates. This is not persuasive because Gross discloses a process by which haul-off rates are changed in order to maintain a desired shape (Column 1, lines 62-68; Column 2, lines 1-48).

Regarding Claim 7, applicant contends that Beck, Gross, and Medley do not teach the instant invention because they do not disclose altering the dimension of the profile after it exits the die. This is not persuasive because altering the *dimension* of the profile after it exits the die is not claimed.

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Regarding Claim 8, applicant contends that Beck and Bramhall do not teach the instant invention because they do not disclose the step of changing the dimension of the profile along its length. This is not persuasive because changing the *dimension* of the profile along its length is not claimed.

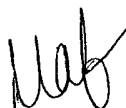
It is noted that the rejection of Claim 10 was not specifically argued.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Maf
August 3, 2004


MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER